Facility Well Name Deffenbaugh #2 **UIC Permit #** KS-01-091-002 **Month** October **Year** 2022

Submitted 11/10/2022 **Approved** 11/22/2022 **KOLAR Document ID** 1672975

Class I-V Injection Well Monthly Monitoring

Summary of Monthly Report

Number of days injection occurred: 31

Barrels per Day Maximum: 14,286

			Annulus Pressure psig min 60		Injection Pressure		
	Injection Volume Barrels per Day	Injection Rate Barrels per Minute	Gauge psig	Cont. Record psig	Gauge psig	Cont. Record psig	Amount Added to Seal Pot
Monthly Average	2,702	1.90	76	76	-12.2	-12.6	0
Monthly Maximum	5,356	5.74	79	79	-12.0	-11.9	0
Monthly Minimum	1,057	0.00	75	74	-13.0	-13.4	0
Monthly Total	83,773						0

Summary of Continuous Recorder Data

Maximum Annulus Pressure psig	Minimum Annulus Pressure psig	Maximum Injection Pressure psig	Minimum Injection Pressure psig
85.88	72.63	-9.78	-13.53

Comments:

Site is using hand held pH meter to take required daily pH readings while waiting for replacement continuous meter which is on order.

Deffenbaugh #2 10/2022

Daily Recorder Data

Day	Time 24 hr	Injection Volume Barrels Per Day	Injection Rate Barrels Per Minute	Annulus Pressure (Gauge) psig	Annulus Pressure (Continuous Recorder) psig	Injection Pressure (Gauge) + / -	Injection Pressure (Continuous Recorder) + / -	Seal Pot Fluid Level inches	Type of Fluid Added to Seal Pot	Amount of Fluid Added to Seal Pot gallons	Initials of Collector of Field Recordings	pH Standard Units	Temperature degrees F
1	10:00	1,323.33	0.55	76	75.4	-12	-12.4	23	N/A	0	RLW	8.00	87.20
2	05:35	1,057.24	0.62	75	74.2	-12	-12.2	23	N/A	0	DWK	8.00	87.20
3	05:40	2,547.71	0.00	75	74.3	-12	-11.9	22	N/A	0	DWK	7.80	79.70
4	05:35	2,563.81	1.69	75	73.9	-12	-12.5	23	N/A	0	DWK	8.00	86.80
5	05:40	1,875.05	1.90	75	74.8	-13	-13.1	23	N/A	0	DWK	8.00	87.20
6	05:50	1,719.24	1.69	75	74.3	-12	-12.5	23	N/A	0	DWK	7.90	88.80
7	06:00	2,204.29	0.55	75	74.5	-12	-12.4	23	N/A	0	DWK	8.00	85.80
8	09:45	1,272.29	0.64	77	77.4	-12	-12.4	22	N/A	0	RLW	8.00	85.10
9	06:30	2,324.95	0.52	75	74.8	-12	-12.1	22	N/A	0	DWK	8.00	85.00
10	06:05	1,707.81	0.57	76	75.5	-12	-12.3	23	N/A	0	DWK	8.00	85.60
11	06:10	4,054.95	1.86	75	74.7	-12	-12.4	23	N/A	0	DWK	7.90	86.40
12	06:15	5,355.62	5.74	75	75.0	-12	-12.1	25	N/A	0	DWK	8.00	91.10
13	06:15	4,787.43	3.07	76	76.5	-12	-12.6	24	N/A	0	DWK	8.00	90.90
14	06:20	4,983.05	3.07	77	77.3	-12	-12.8	24	N/A	0	DWK	8.00	90.50
15	08:30	3,610.33	1.88	77	77.1	-12	-12.6	24	N/A	0	RLW	7.90	90.10
16	06:20	2,810.81	1.86	78	77.7	-12	-12.9	24	N/A	0	DWK	8.00	91.60
17	06:10	2,951.19	1.57	76	75.6	-12	-13.0	24	N/A	0	DWK	8.00	88.30
18	06:55	2,517.10	1.60	78	77.3	-13	-13.0	24	N/A	0	DWK	8.00	86.20
19	06:25	2,793.14	1.71	79	78.6	-12	-13.2	23	N/A	0	DWK	8.10	84.30
20	06:25	2,487.33	3.33	78	77.8	-12	-12.9	23	N/A	0	DWK	8.00	85.40
21	06:25	3,005.71	5.50	77	77.0	-12	-12.8	23	N/A	0	DWK	8.00	88.50
22	10:00	1,741.24	1.67	76	75.0	-12	-12.6	23	N/A	0	RLW	8.00	87.00
23	06:05	2,151.24	0.52	76	76.1	-12	-12.1	24	N/A	0	DWK	7.90	89.70
24	06:15	2,785.14	1.60	76	75.9	-12	-12.7	24	N/A	0	DWK	8.00	91.00
25	06:15	2,442.67	3.12	77	76.8	-12	-12.6	22	N/A	0	DWK	8.00	84.70
26	06:20	4,446.86	1.90	78	78.6	-12	-12.4	22	N/A	0	DWK	7.90	84.40
27	06:15	4,321.24	3.17	79	78.8	-12	-12.5	24	N/A	0	DWK	8.00	91.00
28	06:45	2,314.57	1.50	77	76.5	-13	-13.0	24	N/A	0	DWK	7.90	88.00
29	06:20	1,509.24	1.67	77	77.0	-13	-13.4	22	N/A	0	DWK	8.00	79.80
30	06:25	1,390.19	3.29	77	77.2	-13	-13.0	21	N/A	0	DWK	8.00	82.20
31	06:15	2,718.00	0.50	77	76.9	-12	-12.7	22	N/A	0	DWK	8.00	80.40

Deffenbaugh #2 10/2022

Quarterly Injectate Samples

Quarter 3
Date Sample Collected 08/16/2022
Kansas Lab Certificate Number E-10277
Lab Name Pace Analytical National Center for Testing & Training

These samples shall be representative of injection activity and shall therefore be collected on days of injection.

Constituent	Value	Units
1,1,1-Trichloroethane	<0.001	mg/l
1,1-Dichloroethane	<0.001	mg/l
1,2-Dichlorobenzene	<0.001	mg/l
1,2-Dichloroethane	<0.001	mg/l
1,1-Dichloroethylene	<0.002	mg/l
1,2-Dichloropropane	<0.002	mg/l
1,3-Dichloropropene	<0.001	mg/l
Acetone	0.263	mg/l
Arsenic	0.087	mg/l
Benzene	0.002	mg/l
Calcium	64.100	mg/l
Chloride	2,410.000	mg/l
Chlorobenzene	<140.000	mg/l
Chloroethane	<141.000	mg/l
Chloroform	<0.001	mg/l
Cis-1,2-Dichloroethylene	<0.001	mg/l
Conductivity	19.100	Mmhos
Copper	0.112	mg/l
Dichloromethane (Methylene Chloride)	<0.011	mg/l
Ethylbenzene	0.004	mg/l
Heptachlor	<0.000	mg/l
Iron	2.640	mg/l
Lead	0.015	mg/l

Quarterly Injectate Samples (continued)

Constituent	Value	Units
Magnesium	124.000	mg/l
Methyl Ethyl Ketone (2-Butanone)	4.410	mg/l
Methyl Isobutyl Ketone (4-Methyl 2-Pentanone)	0.05100	mg/l
Nitrobenzene	<0.010	mg/l
Phenol	1.280	mg/l
Pyrene	<0.002	mg/l
Silver	<0.005	mg/l
Sulfate	435.000	mg/l
Tetrachloroethylene	<0.002	mg/l
Thallium	<0.002	mg/l
Toluene	<0.008	mg/l
Total Alkalinity as CaCO3	9,640.000	mg/l
Total Dissolved Solids	11,700.000	mg/l
Total Hardness as CaCO3	669.000	mg/l
Total Suspended Solids	67.200	mg/l
Trichloroethylene	<0.002	mg/l
Trichlorofluoromethane	<0.003	mg/l
Vinyl Chloride	<0.001	mg/l
Xylene	0.010	mg/l
Zinc	0.327	mg/l